National Center for Post-Traumatic Stress Disorder, Department of Veterans Affairs

The Problem of Dual Disorders: PTSD and Substance Abuse

A National Center for PTSD Fact Sheet

Ismene Petrakis, M.D., is Director of the Dual Diagnosis (Substance Abuse) Laboratory of the Clinical Neurosciences Division in West Haven, CT. She and her staff, in collaboration with three Mental Illness Research, Education, and Clinical Centers (MIRECCs), have been working to better understand and treat patients who have PTSD in combination with substance use disorders, particularly alcoholism. Janet Bailey interviewed Dr. Petrakis about her work in September 2002.

How did you get started on your current research with PTSD and substance use disorders?

Our research focuses on medications for the treatment of substance use disorders in people who have other psychiatric illnesses. We have been looking at a number of different patient populations, primarily those who have been using alcohol and who have other Axis I disorders like schizophrenia, schizoaffective disorder, depression, bipolar disorder—and PTSD.

These patients are often excluded from research studies. People with Axis I disorders are usually excluded from participating in research trials on substance abuse treatments, and when researchers study medications that might help with PTSD or other psychiatric illnesses, they often exclude people who have substance use disorders. Yet an overwhelming number of patients actually have what is known as “comorbid” disorders, where the two disorders exist together.

Keeping the research population “pure” makes sense for early studies, when scientists are first trying to determine the effectiveness of a new medication. But researchers have started to realize that these studies involve populations that don’t look anything like the patients that clinicians are trying to treat. As a result, when research findings say a particular drug helps with PTSD, we don’t always know how it’s going to affect people in a clinical setting—the real world.

I think there has been a shift in focus in recent years, though. More people are understanding this problem and are trying to study people who have dual disorders.

How does your research address this situation?

We just completed a very large study involving naltrexone and disulfiram (Antabuse), which are the two FDA-approved medications for treatment of alcoholism. The project was done in collaboration with MIRECCs at three sites: West Haven, Bedford, and Northampton. We recruited about 250 subjects across the three

sites, about one-third of whom had PTSD. This is very much like the population of veterans that you actually see in real mental-hygiene and substance-abuse clinics. These are the people who come for treatment.

Patients who had alcoholism and another Axis I disorder were recruited. They were then randomly placed in two groups to take or not take Antabuse, in an "open" fashion—that is, everyone knew whether they were in the Antabuse group or not. We then further divided the group and then randomly gave them either naltrexone or a placebo. Of course, our research subjects also were taking various kinds of psychiatric medications, and we allowed them to continue taking those drugs. This has the advantage of more accurately mirroring real-world conditions, but the downside is that it's hard to understand fully all the possible interactions among the various medications.

Our research tried to answer the question: In the real world, when people are on these medications, do they get better? We believe this is the first study that has looked at naltrexone and Antabuse together. And, of course, there aren't very good studies of either of these medications in people who have other disorders. We completed our research a few months ago, and have just started analyzing the results.

What do we know about the drugs that are currently available?

For many years disulfiram, known by its trade name Antabuse, was the only available medication for treatment of alcoholism. Many people avoided it or were afraid to take it, though, because it acts strictly as an aversive agent—that is, if you drink while you are taking it, it makes you sick.

Naltrexone is a relatively new medication for the treatment of alcoholism. There was a great deal of excitement when it was approved in the early 1990s, because it doesn't make people sick. It was believed that it would be helpful in curbing cravings and might prevent people from drinking as heavily in the event that they did relapse. The first few clinical studies of naltrexone were very positive. But then the first large multi-site VA study found little effect, so its role in treatment came into question.

At the same time, researchers were studying the effects of some of the newer drugs that were being used to treat depression and PTSD, the serotonin reuptake inhibitors [SSRIs] like Paxil or Zoloft. Interestingly, preliminary studies have found that the SSRIs can be helpful in curbing alcohol use in people who have PTSD or depression but not in people who have alcohol use problems alone. There was also evidence that the combination of the SSRIs and naltrexone together may be more effective in decreasing drinking than either medication is by itself. So, we became interested in looking at the combination, and that led us to our current study.

What is the current study?

Our current study, which is just getting underway, is looking at people who have PTSD and alcohol dependence and who either are not taking psychiatric medications or are not finding those medications helpful. All patients get an active antidepressant medication, either Paxil, which is an SSRI, or desipramine, which is an older medication. Then they get either naltrexone for their alcoholism, or they get a

placebo; they don't know which group they are in. Our hypothesis is that people who get the combination of the SSRI and naltrexone will do better than the other groups.

We will be working again with the MIRECCs at West Haven and Bedford and are hoping to add Northampton later as well. We will probably need about 200 subjects in total. We recruit patients who are currently in treatment as well as people who were previously in treatment but dropped out. We also advertise for subjects in the general media and get people through word of mouth. Sometimes our advertising brings in people who are coming for treatment for the first time.

Although we aren't specifically studying gender differences, we are hoping to get both women and men into our study. SSRIs are thought to be more effective for women, and there are some indications that tricyclic medications, of which desipramine is one, might be more effective for men.

How do you determine who is "doing better?"

We use standardized scales to measure both PTSD symptoms and alcohol use. We measure their PTSD symptoms using the Clinician-Administered PTSD Scale, or CAPS, which is the standard assessment tool developed about a decade ago by the National Center for PTSD. We also measure quality of life factors using a standard scale.

To measure the subject's alcohol use, we use a technique called a "timeline follow-back" in which we sit down with the patient and a calendar and ask them exactly how much they drank every day. When you just ask a person, "How much do you drink?" their answers can be vague and imprecise. Our technique allows us to be more specific—"How much did you drink last weekend? Memorial Day? The next day?"—and the responses are much more accurate. We also ask them about their cravings for alcohol.

To try to get a more objective measurement, we use liver function tests. These can give some indication of drinking, though it's not exact.

We treat the subjects and monitor their progress on these various measures for 12 weeks; then we have a follow-up three months later to see how they are doing.

Are you concerned that subjects won't be honest in reporting their alcohol use?

Well, any time you have a subjective measure you can't be completely sure that people are telling you the truth. It can be very complicated. For instance, if people have a good relationship with the research staff, they may be more honest, or they may say what they think the researcher wants to hear. That's why we do a double-blind study with some subjects taking a placebo. People don't know what group they are in, so we hope any inconsistencies will average out.

Also, although abstinence would certainly be a goal, we are realistic about people's alcohol use and we know that they may get better in subtler ways. For example,

people on naltrexone are sometimes found to drink less heavily—that is, they might relapse a bit and drink but not drink as much as before.

We do tell patients that if they are drinking, we still want them to come and to tell us the truth. We won't kick them out of the study for drinking.

What does all this mean for treatment, especially for veterans?

The dual disorders of PTSD and alcoholism are particularly difficult to treat. Part of the reason, of course, is that when people with PTSD stop drinking, their PTSD symptoms can appear worse. Alcohol is a sedating drug, so it can numb some of the arousal symptoms of PTSD. People also take it because they believe it will help them sleep—although, paradoxically, alcohol can actually interrupt the deeper parts of sleep cycles. Many people drink specifically to relieve their PTSD symptoms, because alcohol can be generally effective at numbing yourself, at least temporarily.

This is a key reason why we should be treating the two disorders together: addressing them one at a time simply doesn't work very well. People need to fix the two problems at once, so they can get on with their lives.

Do you have any particular hopes for future research?

I hope people are inspired to do more studies like this. Dual-diagnosis research is not easy to do, and a lot of researchers don't like to do it, but it really needs to be done.

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